Abstract

Public art is justified and sold based on a variety of purported public benefits, including spacial identity, enhanced use, and improved value. Very little research has been done to quantify these or any other impacts. This study uses ArcGIS to investigate a wide variety of data sets in order to discover any correlations between public art and measurable impacts. Denver, Colorado was chosen as the area of study due to its extensive library of accessible data.

Introduction

My interest lies in determining the measurable impact of public art on public open space. Public art has been studied at small spacial scales based on its impact on individuals and individual spaces. As far as I have discovered, there is very little research into quantifiable landscape impacts and none examining the impact of public.

This is a preliminary study intending to demonstrate correlation between public art and land value. This study is initially limited in scope. There is very little in terms of background research, so this study

Methods

The study assumes quantifiable benefits of public art will be localized spatial effects that change depending on the type of land it falls within. The study uses ArcGIS spatial analysis tools to explore those areas of influence.

The study areas are centered on pieces of public art with rings extending out in intervals of a quarter mile: 0.25 mi, 0.5 mi, 0.75 mi, 1 mi. These rings are spatially joined to assessor's land value statistics, which have been adjusted by land area to determine the value per square foot.

The results of those spatial joins were divided into eight classes based on the relationship between the average land value of the rings and the specific land value of the parcel in which the public art is displayed. Those classes are defined as follows:

Class 1: The art parcel is more valuable than the maximum ring average, and the 0.25 mi ring has the highest value. 48 unique instances.

Class 2: The art parcel is less valuable than the maximum ring average, and the 0.25 mi ring has the highest value. 51 unique instances.

Class 3: The art parcel is more valuable than the maximum ring average, and the 0.5 mi ring has the highest value. 5 unique instances.

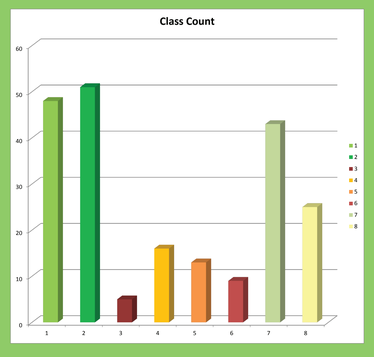
Class 4: The art parcel is less valuable than the maximum ring average, and the 0.5 mi ring has the highest value. 16 unique instances.

Class 5: The art parcel is more valuable than the maximum ring average, and the 0.75 mi ring has the highest value. 13 unique instances.

Class 6: The art parcel is less valuable than the maximum ring average, and the 0.75 mi ring has the highest value. 9 unique instances.

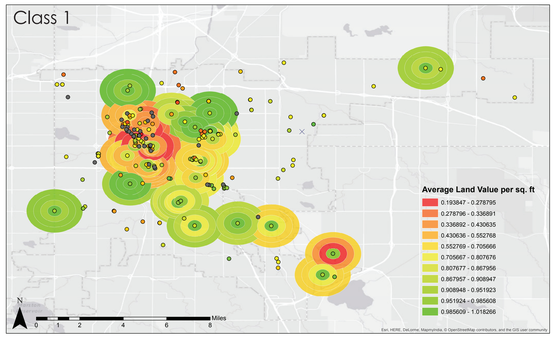
Class 7: The art parcel is more valuable than the maximum ring average, and the 1 mi ring has the highest value. 43 unique instances.

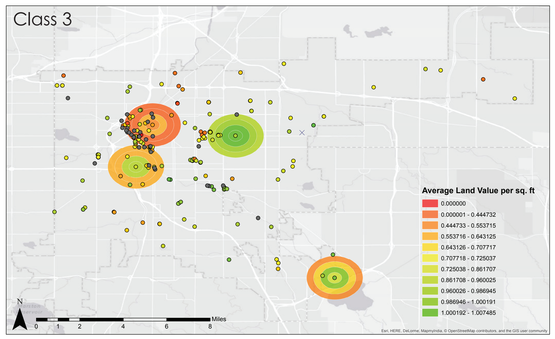
Class 8: The art parcel is less valuable than the maximum ring average, and the 1 mi ring has the highest value. 25 unique instances.

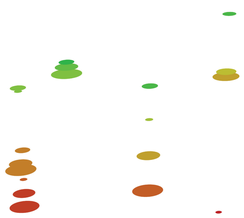


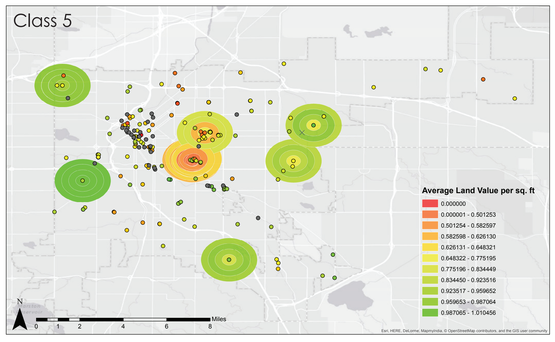
Further visual analysis has been performed using ArcScene, a 3-D visualization software associated with ArcGIS. These projections are geographically referenced and extruded at heights based on land value. These projections allow for the visualization of the density of art spaces, much of which is invisible in two dimensions. This is especially apparent in classes 1, 2, 7, and 8.

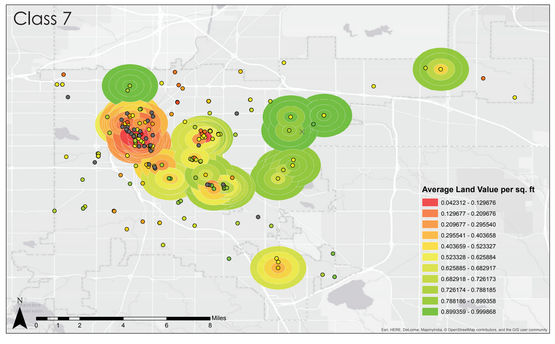
Results

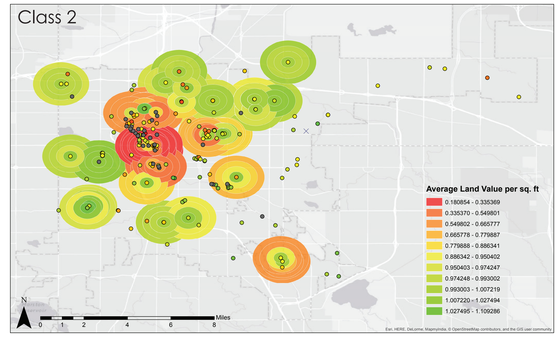


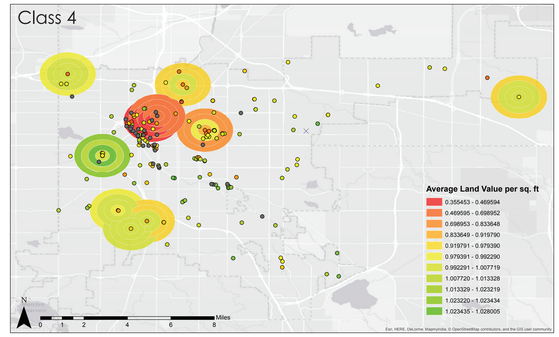


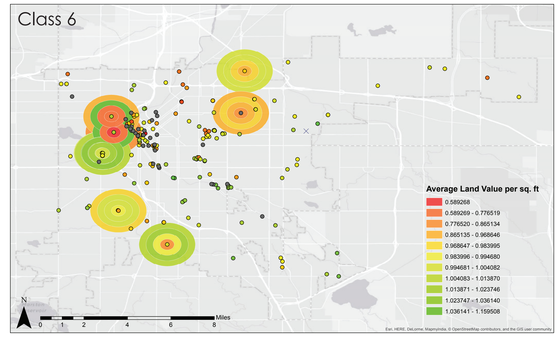


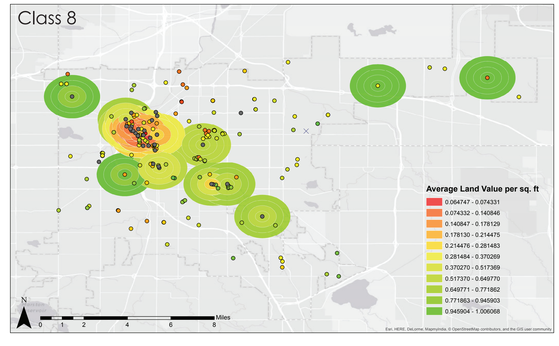












Conclusions

Though these are preliminary results, interesting trends are already evident. The researchers were surprised to see the relatively low value of land in the downtown areas. Those downtown areas also seem to be the locations with less correlation between art and land value. Class 7, which has art on high-value parcels within areas where the largest ring is most valuable, is the class with the significantly lowest land value.

There are approximately equal instances of art on highest value parcels versus art on lower value parcels: 109 - 101 unique instances. However, high value art parcels tends to be correlated with lower value average land values.

Further Plans

Further study and refinement will be performed on this data. The data may be classified into further subcategories based on relationships between other rings and ring trends. Additionally, the data will be sorted and examined more closely based on relative urban fabric through what is called transect analysis. This variety of analysis looks at the change in trends as population and building density decreases.

In the future, this study may be taken to a much greater depth, attempting to find causation, rather than correlation, with the installation of public art and various urban trends.

Art and Public Space: The Measurable Impacts of Public Art in Denver, Colorado

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